

Serial No. 09/660,373

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

<u>In Re Application of</u>	:	November 15, 2004
<u>R. Hermann, et al</u>	:	Group Art No.: 2173
<u>Serial No. 09/660,373</u>	:	Examiner: C. Nguyen
<u>Filed: September 12, 2000</u>	:	IBM Corporation Anne Vachon Dougherty 3173 Cedar Road Yorktown Heights, New York 10598-1964
<u>Title: PORTABLE ELECTRONIC DEVICE UPDATED VIA BROADCAST CHANNEL</u>		

Board of Patent Appeals and Interferences
Washington, D.C. 20231

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APPEAL BRIEF (37 CFR 41.37)

Appellants hereby appeal to the Board of Patent Appeals and Interferences from the decision dated June 14, 2004 of the Primary Examiner finally rejecting Claims 1-25 and 27-37 in the above application, and respectfully request that the Board of Patent Appeals and Interferences consider the

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arguments presented herein and reverse the Examiner's rejection.

I. REAL PARTY IN INTEREST

The appeal is made on behalf of Appellants who are real parties in interest with respect to the subject patent application.

II. RELATED APPEALS AND INTERFERENCES

There are no pending related appeals or interferences with respect to the subject patent application.

III. STATUS OF CLAIMS

There are thirty-six (36) claims pending in the subject patent application, numbered 1-25 and 27-37. No claims stand allowed. All of Claims 1-25 and 27-37 stand rejected. All of Claims 1-25 and 27-37 are the subject of this appeal.

A complete copy of the claims involved in the appeal is attached hereto.

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IV. STATUS OF AMENDMENTS

The status of the prosecution of the application is as follows:

February 13, 2003	-	Office Action.
May 13, 2003	-	Amendment
July 14, 2003	-	Final Office Action
October 14, 2003	-	RCE and Amendment
December 31, 2003	-	Office Action, new grounds
March 31, 2004	-	Amendment
June 14, 2004	-	Final Office Action
September 14, 2004	-	Notice of Appeal filed

No amendments have been filed subsequent to final rejection.

V. SUMMARY OF INVENTION

The subject invention comprises an electronic device (12 of Fig. 1) for receiving broadcast media comprising digital signal information comprising a central processing unit (CPU 16 of Fig. 1) for processing digital signal information, a storage medium (MEM 18) for storing electronic data for selective on-demand viewing by authorized users, a display (20 of Fig. 1), a user interface

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(22 of Fig. 1), and a digital audio broadcast receiver (26 of Fig. 1) which receives a digital signal transmitted by a digital audio transmitter and decodes the received digital signal for use by the CPU to update electronic data stored at said storage medium with said digital signal information, (detailed at page 3, lines 7-15 of the Specification and claimed in Claims 1-11). The invention further comprises a system for handling broadcast media comprising a transmitter (14 of Fig. 1) and the aforementioned portable electronic device (12 of Fig. 1) (Claims 12-22). A method and a program storage device tangibly embodying a program of instructions for performing the method comprising the steps, as illustrated in Fig. 2, of broadcasting a digital audio signal over a broadcast range, receiving the signal at a digital audio receiver, decoding the digital audio signal to obtain update data, and updating the contents of the storage location at the portable electronic device using the update data, are additionally taught from page 5, line 26-page 6, line 10 and claimed in Claims 23-25, 27-36 and 37, respectively.

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VI. STATEMENT OF ISSUES OF APPEAL

The grounds of rejection to be reviewed on appeal is as follows:

"Claims 1-37 are rejected under 35 U.S.C. 102(e) as being anticipated by Ballantyne et al (US Patent No. 5,867,821)".

VII. ARGUMENT

ARGUMENT (1)

Appellants first note that the Examiner has stated that Claims 1-37 are rejected as anticipated. Appellants had previously canceled Claim 26. Accordingly, the rejection should state that Claims 1-25 and 27-37 are rejected.

ARGUMENT (2)

Appellants respectfully assert that the pending claims, Claims 1-25 and 27-37, are not anticipated by the teachings of the Ballantyne patent.

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The present invention is a portable electronic device (12 of Fig. 1) for receiving broadcast media including digital signal information, the device comprising a central processing unit (CPU 16 of Fig. 1) for processing digital signal information, a storage medium (MEM 18) for storing electronic data for selective on-demand viewing by authorized users, a display (20 of Fig. 1), a user interface (22 of Fig. 1), and a digital audio broadcast receiver (26 of Fig. 1) which receives a digital signal transmitted by a digital audio transmitter and decodes the received digital signal for use by the CPU to update electronic data stored at said storage medium with the received digital signal information, (detailed at page 3, lines 7-15 of the Specification and claimed in Claims 1-11). The invention further comprises a system for handling broadcast media comprising a transmitter (14 of Fig. 1) and the aforementioned portable electronic device (12 of Fig. 1) (Claims 12-22). A method is recited in Claims 23-25 and 27-36 comprising the steps, as illustrated in Fig. 2, of receiving a broadcast signal at a digital audio receiver, decoding the digital audio signal to obtain update data, and updating the contents of the storage location at the portable electronic device using the update data, as taught

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from page 5, line 26-page 6, line 10. Claim 37 recites a program storage medium embodying a program of instructions for performing the above-recited method steps. All claims expressly recite automatic updating means and steps for updating information stored at a portable electronic device using information from a received digital signal.

The Ballantyne patent teaches a medical records management system including at least a master library (ML) (2 of Fig. 1) wherein patient records are stored and a nursing station (6 of Fig. 1) to which patient records can be downloaded for temporary storage. When a patient is admitted to a room which is attended to by the nurses at the nursing station, that patient's medical records are accessed from the master library and are temporarily stored at the nursing station. When patient status is updated, using either the input devices at the nursing station or a PDA (10) at the patient's bedside, the information is used to update the medical record at the nursing stations. After the patient has been discharged, the updated medical record is returned to the master library. The master library will either replace the old record with the updated medical record or will store both the old and the updated records (Col. 13, lines 13-20). Ballantyne does not teach or

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suggest that electronic data stored at a portable device can be automatically updated using a digital stream transmitted to the portable device. The master library does not communicate information directly to a PDA. Moreover, Ballantyne provides no teaching or suggestion of accepting update input, or any user input, at the master library (specifically no display, no user interface, etc. at the master library) and no teaching or suggestion of transmitting any updated information from the master library to the nursing station or PDA. The master library cannot provide updates; it simply supplies a stored record and then replaces that stored record with the updated version which is sent via hardwired connection from the nursing station. Ballantyne teaches that patient health cards can be inserted to a PDA for use at the patient's bedside. The information on the health cards is static and is not the same medical record as that information stored at the master library.

In contrast to Ballantyne, the present invention teaches and claims a system and method whereby a storage medium at a portable device receives a digital signal and updates electronic data stored therein with the received digital signal information. Appellants respectfully assert that the invention as claimed is neither taught nor

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suggested by the Ballantyne patent. For a patent to anticipate another invention under 35 U.S.C. § 102(e), the patent must clearly teach each and every claimed feature of the anticipated invention. Since the Ballantyne patent clearly does not teach the system components, including a digital audio broadcast receiver at a portable electronic device for receiving a digital signal, decoding the signals and updating electronic data stored at the storage medium as claimed, or the method steps for receiving, processing and updating as claimed, it cannot be maintained that the Ballantyne patent anticipates each and every claim feature.

The Examiner has cited the Ballantyne teachings found at Col. 4, lines 1-47 against the claimed CPU at the portable device. What is taught therein is the master library storage and compression. The cited teachings do not describe a CPU at a portable electronic device for processing digital signal information. The Examiner has next cited the teachings found at Col. 6, lines 20-57 against the claimed storage medium at the portable device for storing electronic data for selective on-demand viewing by authorized users. What is taught by Ballantyne in the cited passage is storage of medical records at the master library. The Examiner fails to cited any Ballantyne

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teachings against the display and user interface at the portable device, since Ballantyne does not teach that the master library has those components. With regard to the digital audio broadcast receiver, the Examiner has cited the teachings found in Col. 5 at lines 1-67. What is taught therein is that the Ballantyne system has network channels, of 6 MHz bandwidth each, from the master library to the various hardwired networked components for sending video, etc. There is nothing in the cited passage which indicates that the master library has a digital audio receiver, let alone that it receives digital audio signals and updates stored electronic data using those signals. Appellants accordingly conclude that the Ballantyne teachings do not anticipate the invention as claimed.

With regard to Claim 2, the Examiner cited Col. 3, lines 65-67. Appellants respectfully assert that the cited passage makes no mention of an electronic book.

With regard to Claim 3, the Examiner cited a passage which teaches the opposite of what is claimed. While the claim recites the portable device using digital audio signals to updates data stored therein, Ballantyne teaches that all updates are made at the PDA or nursing station. Moreover, the updates are not communicated to the master

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library in a digital audio signal; they are made to a local record which is later uploaded via hardwired connections to replace an entire medical record stored at the master library.

With regard to Claim 4, Ballantyne simply does not teach or suggest a display at the master library.

With regard to Claim 5, the Ballantyne health cards, which can be inserted into the PDA at the patient's bedside, there is nothing in Ballantyne which teaches or suggests that the smart cards be used for paying for broadcasts to the PDA!

With regard to Claim 6, no broadcast channel is taught by Ballantyne. In fact, Appellants respectfully assert that such would render the Ballantyne system unworkable, since to broadcast patient health information would violate patient privacy laws.

The Examiner cited Col. 13, lines 42-67 against Claim 7. The cited passage details the Ballantyne PDA functionality. The passage does not, however, anticipate the device of Claim 1 further comprising a storage and retrieval device.

With regard to Claim 8, Appellants direct the Board's attention to Col. 10, line 58-Col. 11, line 11 of

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Ballantyne. It is clear from that description of the use of smart health cards, wherein cards bearing compressed patient health records accompany the patient to various locations in the hospital, that Ballantyne is not teaching the invention of Claim 1 further comprising a smart card reader and associated smart card data processing software.

With regard to Claim 9, there is no teaching of decryption keys associated with the Ballantyne health cards, nor of metered access to broadcasts based on keys stored on cards. Ballantyne separately teaches health cards storing patient data and selective access to separate medical records stored by the master library. There is no Ballantyne teaching connecting the two. Moreover, when a patient does request something, such as television viewing, there are no teachings that the patient's health card bears restriction information.

With regard to Claims 10-11, Ballantyne does not teach or suggest a counter with regard to the health cards.

With regard to Claim 12, the Examiner cites Figs. 6-11A. However, if the Examiner is analogizing the electronic device to the master library, Appellants fail to understand what entity serves as the broadcast server. Moreover, Appellants have already established that

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Ballantyne does not teach a user interface, a display or the digital audio broadcast receiver at the master library.

With regard to Claim 13, Appellants assert that the cited teachings from Col. 6, lines 32-67 detail connections, but do not teach or suggest dynamically changing channel configurations adapted to the media being transmitted.

Similarly, with regard to Claim 14, the cited passage from Col. 16, lines 22-67 teaches selective compression of data to be transmitted and distribution along an appropriate channel. That is not the same as, nor suggestive of, dynamically changing the channel configuration.

With regard to Claim 15, the Ballantyne user access verification is not the same as the claimed automatic detecting of content identifiers and screening use thereof for selective downloading. Ballantyne downloads entire medical records but restricts views based on access layers (i.e., entry of multiple IDs). Ballantyne does not detect and use signal-based content identifiers to restrict downloads.

With regard to Claim 16, there is nothing in Ballantyne which teaches or suggests scanning for specific content. Appellants respectfully assert that searching a database

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(i.e., the master library) cannot be analogized to the dynamic signal processing which is taught and claimed.

With regard to Claims 17-19, Appellants respectfully refer the Board's attention to the arguments presented above with regard to the parallel claims, Claims 12-15.

With regard to Claims 20-22, the cited passage from Col. 8, lines 1-64 details access with ID number entry, as noted above, but not with smart cards. Moreover, as argued earlier, the health cards of Ballantyne are not described as having any encoded restrictions, keys, access limitations, etc.

With regard to Claim 23, Appellants again argue that the claim language expressly recites storage at a portable location, receiving a digital audio broadcast at the portable location, decoding and updating stored information at the portable location. Ballantyne not only does not teach the claim features, but teaches away from them. The cited passage from Col. 14, lines 5-67 describes that the PDA gets information from an inserted health card and, if needed, also gets records from the nursing station. However, the PDA does not receive any updates via digital audio signals. The only updates which a PDA receives are input by a user of the PDA.

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The remaining claims' rejections, of Claims 24-25 and 27-37 rely on earlier presented rejections of Claims 12-23. Accordingly, Appellants also rely on the arguments presented above with regard to the language of the remaining claims.

Appellants further submit the general statement that the present claims refer to information sent on broadcast channels. Clearly, given the requirement of patient privacy, it cannot be concluded that Ballantyne was teaching or suggesting that patient medical records be transmitted along broadcast channels.


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CONCLUSION

Appellants respectfully assert that the Examiner has erred in rejecting Claims 1-25 and 27-37 as anticipated by the Ballantyne patent. Appellants believe that the reference does not provide the teachings which the Examiner has suggested, and that the Ballantyne patent teachings do not anticipate each and every claims feature.

In light of the foregoing arguments, Appellants request that the decision of the Examiner, rejecting all of the pending claims, be overturned by the Board and that the claims be passed to issuance.

Respectfully submitted,
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APPENDIX OF CLAIMS

1. A portable electronic device for receiving broadcast media comprising digital signal information comprising:

a central processing unit (CPU) for processing digital signal information;

a storage medium for storing electronic data for selective on-demand viewing by authorized users;

a display;

a user interface; and

a digital audio broadcast receiver which receives a digital signal transmitted by a digital audio transmitter and decodes the received digital signal for use by the CPU to update electronic data stored at said storage medium with said digital signal information.

2. The device of claim 1 wherein the device comprises an electronic book.

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3. The device of claim 1 wherein the device comprises a portable database of medical records stored at said storage medium and wherein the digital broadcast transmitted by the digital audio transmitter updates said medical records of a patient.

4. The device of claim 3 further comprising a display processing means for selectively displaying updated records.

5. The device of claim 1 including a smart card reader and processing software, which permits a means of payment to the broadcaster of said digital signal from said digital audio transmitter.

6. The device of claim 1 wherein the digital audio broadcast receiver is a radio receiver which extracts and delivers a digital data stream from a broadcast channel.

7. The device of claim 1 wherein the device further includes a storage and retrieval device.

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8. The device of claim 1 wherein the device further comprises a smart card reader and associated smart card data processing software for handling a smart card.

9. The device of claim 8 wherein the smart card has a cryptographic decryption key stored thereon for providing metered access to the broadcast media.

10. The device of claim 9 further comprising a counter and wherein the cryptographic decryption key on the smart card is associated with a count and wherein the counter decrements the count each time at least part of the digital signal is decrypted.

11. The device of claim 9 wherein the counter is decremented for each page downloaded.

12. A system for handling broadcast media comprising:
a transmitter comprising a broadcast server for transmitting a digital audio broadcast; and
a portable electronic device comprising a central processing unit (CPU) for processing digital signal information, a storage medium for storing electronic data

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for selective on-demand viewing by authorized users; a display; a user interface; and a digital audio broadcast receiver which receives a digital signal transmitted by a digital audio transmitter and decodes the received digital signal for use by the CPU to update electronic data stored at said storage medium with said digital signal information.

13. The system of claim 12 wherein the digital audio transmitter broadcasts dynamically changing channel configurations in which channel bandwidth is dynamically adapted to the broadcast media being transmitted.

14. The system of claim 13 wherein the channel configuration is dynamically changed by identifying broadcast media which is not likely to require all available bandwidth, calculating excess available bandwidth, and allocating the excess in a manner which provides sufficient bandwidth for transient subchannels.

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15. The system according to claim 12 wherein the digital audio broadcast includes content identifiers associated with the type of media broadcast; wherein the device includes a screening device which selectively permits the downloading of broadcasts according to said content identifiers.

16. The system of claim 12, wherein the device further comprises means to periodically scan a broadcast channel for specific content.

17. The system of claim 12 wherein the electronic device further comprises a smart card reader and associated smart card data processing software for handling a smart card.

18. The system of claim 17 wherein the smart card has a cryptographic decryption key stored thereon for providing metered access to the broadcast media.

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19. The system of claim 18 further comprising a counter and wherein the cryptographic decryption key on the smart card is associated with a count and wherein the counter decrements the count each time at least part of the digital signal is decrypted.

20. The system of claim 17 wherein the smart card reader and associated smart card data processing software enable payment to the broadcaster whereby the broadcaster broadcasts an encrypted signal and charges a set fee for a smart card having a decryption key encoded thereon and for which the smart card reader and associated smart card data processing software are capable of decrypting the signal only during a certain period of time.

21. The system of claim 20 wherein, when inserted in a smart card reader of the device, the smart card enables unlimited access to the broadcast signal only during the certain period of time.

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22. The system of claim 21 wherein the broadcast media is transmitted with the matching key, thus enabling only those having the proper decryption key to decode the broadcast media.

23. A method of providing broadcast media for updating stored electronic data in a storage location at a portable electronic device, the method comprising the steps of:

broadcasting a digital audio signal over a broadcast range;

receiving the signal at a digital audio receiver;

decoding the digital audio signal to obtain update data; and

updating the contents of the storage location at the portable electronic device using the update data.

24. The method of claim 23 further comprising a smart card to meter access to the broadcast media.

25. The method of claim 23 wherein the broadcast media comprises media of a non-interactive nature selected from the group consisting of electronic editions of newspapers, magazines, books, movies, digitized audio data,

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program-associated data, program titles, program notes, CD cover images, and pure data.

27. The method of claim 23 further comprising scanning the digital audio signal for media content.

28. The method of claim 27 wherein said scanning for desired media content comprises attempting to match at least one of a user profile, a specific user request or a subscription.

29. The method of claim 23 further comprising encrypting said signal prior to broadcasting.

30. The method of claim 29 further comprising decrypting at least a portion of the broadcast.

31. The method of claim 30 wherein the decrypting comprises using a decryption key encoded on a smart card.

32. The method of claim 23 further comprising registering the broadcast received.

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33. The method of claim 23 further comprising associating a debit with the broadcast received for billing purposes.

34. The method of claim 23 wherein the digital audio broadcast includes content identifiers associated with the type of media broadcast and further comprising the step of screening to selectively permit the downloading of broadcasts according to said content identifiers.

35. The method of claim 23 further comprising said digital audio transmitter broadcasting dynamically changing channel configurations in which channel bandwidth is dynamically adapted to the broadcast media being transmitted.

36. The method of claim 35 wherein the channel configuration is dynamically changed by identifying broadcast media which is not likely to require all available bandwidth, calculating excess available bandwidth, and allocating the excess in a manner which provides sufficient bandwidth for transient subchannels.

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37. A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for updating the contents of a storage location at a portable electronic device, the method comprising the steps of:

receiving a digital audio signal at a digital audio receiver;

decoding the digital audio signal to obtain update data; and

updating the contents of the storage location at the portable electronic device using said update data.